

Patent claims

1. Method for the detection of bacteria of the genus *Legionella* by means of a sandwich hybridization procedure characterized as follows:
 - a) For the genus specific detection of *Legionella* an oligonucleotide probe of the sequence 5'-CCTCCTCCCCACTGAAAGT-3' is used as detection probe and an oligonucleotide probe of the sequence 5'-CACTGTATGTCAAGGGTAGG-3' is used as capture probe.
 - b) For the species specific detection of *Legionella pneumophila* an oligonucleotide probe of the sequence 5'-ATCTGACCGTCCCAGGTT-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-TTCGCCGCCCTCTGTATCG-3' is used as detection probe.
 - c) For the species specific detection of *Legionella feeleyi* an oligonucleotide probe of the sequence 5'-GCGCCACTAACCTCATTAT-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-TATACAACACCTACGCACC-3' is used as detection probe.
 - d) For the species specific detection of *Legionella jordanis* an oligonucleotide probe of the sequence 5'-CCACTCCTCCCCACTGAAAG-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-CTTACGGTCCCCAGCTTTTT-3' is used as detection probe.

All hybridizations are performed at temperatures between 50 and 55°C.

2. Method according to patent claim 1 characterized thereby, that for a species specific detection of different *Legionella* species the oligonucleotide probes used as the respective capture and detection probes are exchangeable against each other.
3. Method according to patent claim 1 characterized thereby, that the detection can be performed with combinations of oligonucleotide probes for a genus and a species specific detection.